

What Is Claimed Is:

1. A device for a data and energy management in a vehicle (1) having connecting means (4) via which a superordinate control unit (2) may be connected to at least one subordinate control system (6), the superordinate control unit (2) having a superordinate interface (24) and the at least one subordinate control system (6) having in each case a subordinate interface (61), using which, the superordinate control unit (2) and the at least one subordinate control system (6) exchange data of at least one electrical user (8) via the connecting means (4), for the purpose of a bidirectional communication,

wherein

- in the case of an energy demand by the at least one subordinate control system (6) via a first connecting means (4), purposefully at least one additional connecting means (4) is able to be deactivated and/or activated by at least one superordinate switching means (23) of the superordinate control unit (2), in order to fulfill the desired energy demand.

2. The device as recited in Claim 1,

wherein the superordinate control unit (2) includes means for storing (25) the state of the at least one subordinate control system (6) and/or of the at least one electrical user (8).

3. The device as recited in one of the preceding claims,

wherein the superordinate control unit (2) includes at least one superordinate current recording means (21), which detects an overall current, flowing via the at least one superordinate switching means (23), of all the active electrical users (8), that are connected to the same connecting means (4), and selectively deactivates this connecting means (4) if the flowing overall current exceeds a predefined boundary value.

4. The device as recited in Claim 1 or 2,

wherein the subordinate control system (6) is equipped with at least one subordinate current recording means (62), which detects the current flowing via at least one subordinate switching means (60) and supplies it to a subordinate switching circuit logic (63) for evaluation, as a function of which the subordinate switching means (60) is able to be controlled.

5. The device as recited in one of the preceding claims, wherein the subordinate control system (6) includes a voltage transformer (64), which may be used as a voltage source in order to record the state of the switching elements, connected to the subordinate control system (6), of the at least one electrical user (8).

6. The device as recited in one of the preceding claims, wherein, in the at least one subordinate control system (6), subordinate voltage recording means are provided for recording the supply voltage with which the at least one electrical user (8) is supplied.

7. The device as recited in Claim 6, wherein the subordinate voltage recording means make possible monitoring of the at least one connecting means (4) between two adjacent subordinate control systems (6).

8. The device as recited in one of the preceding claims, wherein, in the at least one subordinate control system (6), contact means (66, 69) are provided for connecting to the at least one connecting means (4), which are designed in such a way that a polarity reversal is to be excluded.

9. The device as recited in one of the preceding claims, wherein the data of the subordinate control system (6) are exchangeable via the at least one connecting means (4) in the sense of a direct communication with each other.

10. The device as recited in Claim 9, wherein, in connection with the direct communication between subordinate control systems (6), the function of a deactivated or no longer activatable electrical user (8) may be taken over by an electrical user (8) that is carrying out a substitute function.

11. The device as recited in one of the preceding claims, wherein the at least one connecting means (4) are developed as a flat band line having at least one supply line (41, 42) and/or at least one data line (43, 44).

12. The device as recited in Claim 11, wherein the flat band line is developed as a stub line that starts from a common neutral point (2).

13. The device as recited in one of the preceding claims, wherein, in a multivoltage vehicle electrical system, a superordinate voltage transformer (22) of the superordinate control unit (2) supplies an additional supply line (42) of the at least one connecting means (4) with a different voltage from that of the at least one supply line (41).

14. The device as recited in one of the preceding claims, wherein the one additional supply line (42) of the at least one connecting means (4) is designed as a closed circuit current line, using which, safety-relevant users (8) are able to be redundantly supplied and/or the supply of the electrical users (8), that have to be active when the vehicle (1) is switched off, is ensured.